Problem Link:

<https://leetcode.com/problems/number-of-people-aware-of-a-secret/?envType=daily-question&envId=2025-09-09>

Solution:

class Solution {

public:

int peopleAwareOfSecret(int n, int delay, int forget) {

int m = 1e9 + 7;

vector<long long> dp(n + 1, 0);

dp[1] = 1;

long long s = 0;

for(int i = 2; i <= n; ++i)

{

if(i - delay >= 1)

s = (s + dp[i - delay]) % m;

if(i - forget >= 1)

s = (s - dp[i - forget] + m) % m;

dp[i] = s;

}

long long res = 0;

for(int i = n - forget + 1; i <= n; ++i)

{

res = (res + dp[i]) % m;

}

return res;

}

};